

Computer Tools for Planning, Conservation, and Environmental Protection



In an effort to increase awareness of Internet resources available to local governments and citizen planners the Wisconsin Department of Natural Resources (DNR) has initiated a technical assistance program focused on computer tools for planning, conservation, and environmental protection. This program has been made possible by a water quality management grant awarded to the DNR by the U.S. Environmental Protection Agency (EPA).

As part of our technical assistance program we have developed this series of articles. Each article will highlight a different tool, discuss its possible uses, and offer step-by-step tutorials. It is our hope that the information provided here will insure that all involved in local planning processes have equal access to valuable information and analysis tools. Gaining access to these free web-based planning tools will assist communities with preliminary selection of alternative approaches to watershed and community planning. When community planners, developers, and citizens have access to similar information they are more readily able to interact and jointly discover possible solutions to land use issues.

Definition of a Tool

To help evaluate the available tools, we have sorted them into three categories—data access, interactive mapping, and predictive modeling. Data access tools give users access to a wide range of shared information. Many of the tools in this category serve as portals allowing users the ability to obtain demographic, geographic, environmental, and other data from multiple sources across the Internet. These portals give the user the ability to create a more comprehensive picture of their local community.

Window To My Environment

One data access tool, Window To My Environment (WME), is sponsored by the EPA. Developed in partnership with federal, state, tribal and local governments, this tool provides even the novice computer user with a wealth of information. WME is part of a suite of EPA tools that have won numerous awards during its development over the last century.

As with all the tools we will cover during this series of articles, the only necessary software is a web browser. Meaning, if you have internet access you can acquire this information now, without any initial investment. Web-based decision support tools allow anyone involved or interested in your

community's land use decisions access to scientifically based information.

Users of WME can obtain information on their area's air and water quality by accessing data from federal and state monitoring sites. Abundant information on activities occurring in your local watershed is available including information on Superfund sites, toxic releases, water discharge, air emissions, hazardous waste locations, and demographics. Numerous reports can be obtained on the physical and chemical characteristics of impaired water bodies. WME is basically a bottomless portal to federal, state, tribal, and local resources along with links to other organizations at work in the queried watershed.

WME gives you the ability to navigate your way through any watershed using traditional visual landmarks including highways and streets. All of the available features can be overlaid onto aerial photo, topographic map, or shaded relief backgrounds. WME improves access to useful community-based environmental information and lends support to community-based decision making.

Notes From The Developer

I asked Tom Brody, Environmental Systems Engineer for the EPA, what the primary reason behind the tool's development was, "WME is designed to improve access to useful community-based environmental information. EPA and the states are developing a comprehensive exchange network that will provide a wide range of shared data and information among EPA, states, tribes, localities, the regulated community, and other data partners. WME represents a concerted effort to develop a "geographic portal" for integrating environmental information by local geography to help answer common questions, examine critical problems, and discover potential solutions for environmental protection and human health issues in your community."

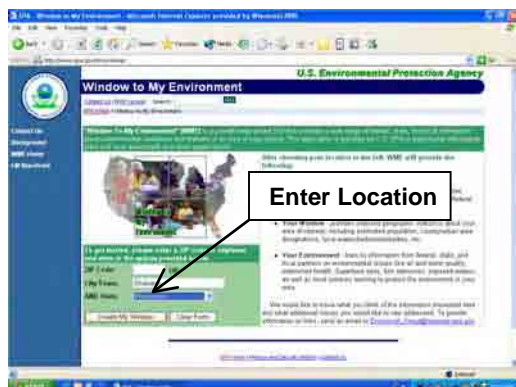
The creation of data portals, like WME, has the potential to increase public participation in local decision making, "I have presented it for use in land use planning and human health concerns from toxic emissions from nearby facilities. It is an excellent tool for presenting the facts as we know them for a wide variety of issues in people's backyards", stated Brody.

Not only is WME an excellent tool for citizen planning groups, it is also a great resource for local governments. Brody feels, “The scale is excellent for town/village scale analysis. The most effective scale shows a six square mile area - the size of a medium sized town or village and its outskirts. It can be used as a screening tool for zoning debates on where to place (or not place) new facilities and how land development has occurred over time. Town and village governments can also work with the developers of WME to help answer questions about the local environment.”

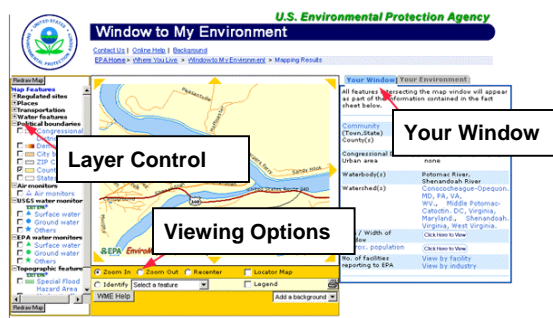
WME also has the capability to assist local governments with their EPA Storm Water Phase II responsibilities. The tool’s online availability helps local governments facilitate their public education, outreach, and participation control measures.

How to Access WME

1. Using your internet browser, go to <http://www.epa.gov/enviro/wme/>. Enter your zip code or city and state in the fields located in the lower left of the page. Click “Create My Window”.



2. Your window will be created displaying the basic spatial data for the area queried in step 1. Below is a view of the window.



The **Layer Control** allows you to turn on and off the visible map elements. These are controlled by toggling the checkbox associated with the item and then clicking “Redraw Map”.

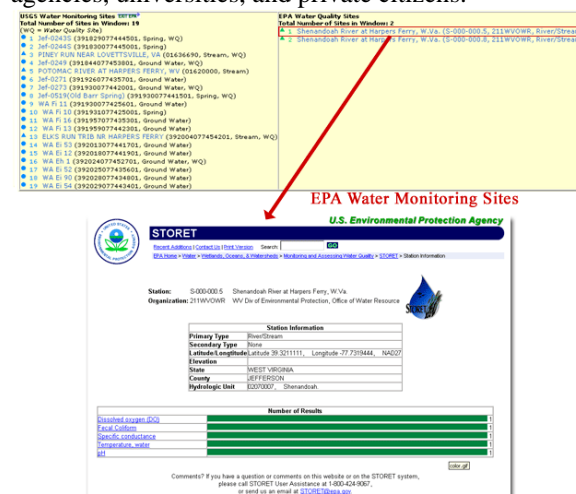
The **Viewing Options** allow you to move your way through the area by zooming, panning, and recentering.

An Example Using WME

To Access EPA Water Monitoring Reports

Select EPA Water Monitor layers in the Layer Control Area then click “Redraw Map”. The Reports available for the visible area are then displayed in area below the map.

Click on monitor listing to bring up the EPA’s STORET data. STORET (short for STOrage and RETrieval) is a repository for water quality, biological, and physical data and is used by state environmental agencies, EPA and other federal agencies, universities, and private citizens.



Explore WME by navigating your way through the many available links. WME provides information that may prove useful in your local community.

For More Information:

www.dnr.state.wi.us/org/es/science/landuse
WDNR’s land use website



www.epa.gov/waterspace



Article prepared by R. Chris Welch
Bureau of Integrated Science Services
Wisconsin Department of Natural Resources
P.O. Box 7921
Madison, WI 53707-7921